

## IN THE CLAIMS

The following is a complete list of the claims now pending; this listing replaces all earlier versions and listings of the claims.

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Sub 51  
1. (Currently Amended) A transmission method of transmitting data on a network having at least one switch enabling information to be transmitted on at least one path on a network between a source node sending data and a destination node receiving the data during a communication session, the network being adapted to transmit data in at least one connected mode, in which isochronous data is transmitted, and at least one non-connected mode, in which asynchronous data is transmitted, the session including transmission of at least one packet, each packet including which includes user data and additional data defining notably the path on the network which the user data will follow, said transmission method comprises:

when each the packet is received, the destination node performs:

a first reading step, of reading the additional data; and

a determination step, of determining the transmission mode, connected or non-connected, taking into account at least some of the additional data,

wherein; the additional data includes a data item representing a virtual channel and a data item representing the source node and, during the said determination step, the destination node takes into account the data items representing both the virtual channel and the source node in order to determine the transmission mode, connected or non-connected, the data item representing the source node being placed in addition to the virtual channel in order to enable the destination node to identify the virtual channel used by the user data.

2. (Currently Amended) A transmission method according to ~~Claim~~ claim 1, wherein the destination node has a memory in which additional reference data are stored and said determination step includes a comparison step, of comparing the additional reference data and additional data read during ~~the~~ said first reading step.

3. (Currently Amended) A transmission method according to ~~Claim~~ claim 2, wherein, during said determination step, the transmission mode is determined as connected when the read additional data and the additional reference data are identical.

~~4.~~ (Currently Amended) A transmission method according to ~~Claim~~ claim 1, wherein, when, during said determination step, it is determined that the transmission mode is non-connected, the method includes a second reading step, of reading, in the first packet containing the information, additional data relating to the information and intended to organize its transmission.

5. (Currently Amended) A transmission method according to ~~Claim~~ claim 1, wherein, when the transmission mode is connected, the method includes a reservation step, of reserving a virtual channel between the source node and the destination node, said reservation step being effected as a preliminary to transmission of the said information.

6. (Cancelled)

7. (Currently Amended) A reception method of receiving, by a destination node, ~~on a network having at least one switch, for receiving information data~~ on at least one path on a network coming from a source node during a communication session, the network being adapted to transmit data in at least one connected mode, in which isochronous data is transmitted, and at least one non-connected mode, in which asynchronous data is transmitted, the session including the transmission of at least one packet, ~~each packet including~~ which includes user data and additional data defining ~~notably~~ the path on the network which the user data will follow, said reception method comprises:

~~when each packet is received, it includes:~~

a first reading step, of reading the additional data, in the received

 packet;

a determination step, of determining the transmission mode, connected or non-connected, taking into account ~~at least some of~~ the additional data,

wherein; the additional data includes a data item representing a virtual channel and a data item representing the source node and, during said determination step, the destination node takes into account the data items representing both the virtual channel and the source node in order to determine the transmission mode, connected or non-connected, the data item representing the source node being placed in addition to the virtual channel in order to enable the destination node to identify the virtual channel used by the user data.

8. (Currently Amended) A reception method according to ~~Claim~~ claim 7, wherein the destination node has a memory in which additional reference data are stored and said

determination step includes a comparison step, of comparing the additional reference data and additional data read during said first reading step.

9. (Currently Amended) A reception method according to claim 8, wherein, during said determination step, the transmission mode is determined as connected when the additional reference data and the read additional data are identical.

10. (Currently Amended) A reception method according to ~~Claim~~ claim 7, wherein, when, during said determination step, it is determined that the transmission mode is non-connected, the method includes a second reading step, of reading, in the first packet containing the information, additional data relating to the information and intended to organize its transmission.

11. (Currently Amended) A reception method according to ~~Claim~~ claim 7, wherein, when the transmission mode is connected, the method includes a reservation step, of reserving a virtual channel between the source node and the destination node, said reservation step being effected as a preliminary to transmission of the information.

12. (Currently Amended) A transmission system for transmitting data on a network having at least one switch enabling information to be transmitted on at of least one path on a network between a source node sending data and a destination node receiving the data during a communication session, the network being adapted to transmit data in at least one

connected mode, in which isochronous data is transmitted, and at least one non-connected mode, in which asynchronous data is transmitted, the session including the transmission of at least one packet, ~~each packet including~~ which includes user data and additional data defining ~~notably~~ the path on the network which the user data will follow, said transmission system comprises:

processing means of the destination node, ~~adapted, each time a packet is received, to read~~ for reading the additional data in the packet, and ~~to determine~~ determining the transmission mode, connected or non-connected, taking into account ~~at least some of the~~ additional data,

wherein; the source node has determination means for determining the additional data so that the additional data includes a data item representing a virtual channel, a data item representing the source node and said processing means of the destination node taking into account the data items representing both the virtual channel and the source node in order to determine the transmission mode, connected or non-connected, the data item representing the source node being placed in addition to the virtual channel in order to enable the destination node to identify the virtual channel used by the user data.

13. (Currently Amended) A transmission system according to ~~Claim~~ claim 12, wherein the destination node has a memory means in which additional reference data are stored and ~~in that~~ said processing means of the destination node is adapted to compare the additional reference data and the ~~read~~ additional data read in of the packet.

14. (Currently Amended) A transmission system according to ~~Claim~~ claim 13, wherein said processing means of the destination node is adapted to determine that the transmission mode is connected when the read additional data and the additional reference data are identical.

15. (Currently Amended) A transmission system according to ~~Claim~~ claim 13, wherein, when said processing means of the destination node has determined that the transmission mode is non-connected, to read, in the first packet containing the information, additional data relating to the information and intended to organize its transmission.

EA 16. (Currently Amended) A transmission system according to ~~Claim~~ claim 13, wherein said processing means of the destination node is adapted to reserve a virtual channel, in cooperation with the source node, and to effect the reservation in order to effect the reception of information in the connected mode.

17. (Cancelled)

18. (Currently Amended) A reception device of a destination node, ~~on a network having at least one switch~~, for receiving information data on at least one path on a network coming from a source node during a communication session, the network being adapted to transmit data in at least one connected mode, in which isochronous data is transmitted, and at least one non-connected mode, in which asynchronous data is transmitted, the session including

the transmission of at least one packet, ~~each packet including~~ which includes user data and additional data defining ~~notably~~ the path on the network which the user data will follow, said reception device comprises:

processing means adapted, ~~each time a packet is received to read for~~ reading the additional data, and ~~to determine~~ determining the transmission mode, connected or non-connected, taking into account ~~at least some of~~ the additional data,

wherein; the additional data includes a data item representing a virtual channel; and a data item representing the source node and said processing means is adapted to take into account the data items representing both the virtual channel and the source node in order to determine the transmission mode, connected or non-connected, the data item

representing the source node being placed in addition to the virtual channel in order to enable the destination node to identify the virtual channel used by the user data.

19. (Currently Amended) A reception device according to ~~Claim~~ claim 18, wherein it said device has a memory means in which additional reference data are stored and said processing means includes comparison means of comparing the additional reference data and the additional data read by said processing means.

20. (Currently Amended) A reception device according to ~~Claim~~ claim 19, wherein said processing means is adapted to determine that the transmission mode is connected when the additional reference data and the read additional data are identical.

21.-30. (Cancelled)

31. (Currently Amended) A transmission method of transmitting user data ~~on a switched network between~~ from a source node ~~having a unique identifier on the network and~~ to a destination node, the transmission method comprises:

performed by the source node,

a first determination step, of determining additional outward data defining ~~notably, in its entirety,~~ the path to be followed on the network by the user data, and defining an identifier of source node;

A sending step, of sending, ~~by the source node,~~ at least one packet of user data and additional outward data which relate to it;

wherein;

during said first determination step, the source node defines additional outward data representing the unique identifier of the source node; and

performed by the destination node, on reception of ~~each~~ the packet,

a reading step, of reading the identifier in the additional outward data; and

a checking step, of checking correct reception of the user data and, in the event of correct reception:

a second determination step, of determining additional return data defining ~~notably~~ a path going from the destination node to the node identified by the identifier; and



an acknowledgment step, of acknowledging by sending acknowledgment data indicating correct reception of the user data and of the additional return data,

wherein, during said first determination step, the source node defines additional outward data representing a virtual channel which the user data must follow, the ~~unique~~ identifier of the source node being placed in addition to the virtual channel, thereby enabling the destination node to identify the virtual channel used by the user data, ~~without any ambiguity.~~

32. (Currently Amended) A transmission method according to ~~Claim~~ claim 31, wherein, during said second determination step, the destination node determines additional return data representing the virtual channel which the acknowledgment data must follow.

33. (Currently Amended) A method of sending user data ~~over a switched network used by~~ from a source node ~~having a unique identifier on the network for transmitting user data~~ to a destination node, the method comprises:


a determination step at the source node, of determining additional outward data defining ~~notably, in its entirety,~~ the path to be followed on ~~the~~ a network by the user data, and

a sending step, of sending, by the source node, at least one packet of user data and additional outward data which relate to it,

wherein; the additional outward data determined during said determination step represents ~~the unique~~ an identifier of the source node which is placed in addition to the virtual channel which the user data must follow in order to enable the destination node to identify the virtual channel used by the user data.

34. (Currently Amended) A method according to ~~Claim~~ claim 33, on reception of a packet in return, coming from the destination node, the packet including acknowledgment information, further comprises:

a read step, of reading a virtual channel identifier represented by the acknowledgment information; and

 a comparison step, of comparing the received identifier and the virtual channel identifier used during said sending step.

35. (Currently Amended) A reception method of receiving, by a destination node, user data ~~on a switched network, data~~ coming from a source node ~~having a unique identifier on the network, the~~ said method comprises:

on reception of ~~each a packet coming from the source node~~ including the user data,

a first read step, of reading an identifier in additional outward data transmitted, in the packet, with user data; and

a check step, of checking correct reception of the user data and, in the event of correct reception:

a determination step, of determining additional return data  
defining ~~notably~~ a path going from the destination node to the node identified by the identifier;  
and

an acknowledgment step, of acknowledging by sending  
acknowledgment data indicating the correct reception of the user data and of the additional return  
data,

wherein: said ~~method~~ more particularly comprises a second first read  
step, of reading the ~~unique~~ identifier source node ~~identifier~~, which is placed in addition to a  
virtual channel which the user data must follow, in order to enable the destination node to  
identify the virtual channel used by the user data.

36. (Currently Amended) A reception method according to ~~Claim~~ claim 35,  
wherein, during said determination step, the destination node determines additional return data  
representing the virtual channel which the acknowledgment data must follow.

37. (Currently Amended) A reception method according to ~~Claim~~ claim 35,  
wherein, during said determination step, the destination node incorporates, in the additional  
return data, a virtual channel identifier represented by additional data received from the source  
node.

38. (Currently Amended) A ~~transmission system for transmitting user data on a switched network between~~ having a source node having a unique identifier on the network and a destination node, the transmission system comprises:

the source node having;

determination means for determining additional outward data  
defining notably, in its entirety, ~~the~~ a path to be followed on ~~the~~ a network by ~~the~~ user data and  
defining an identifier of the source node; and

cf sending means for sending, ~~by the source node~~, at least one packet  
of user data and additional outward data which relate to it,

wherein,

~~said determination means of the source node being adapted to~~  
~~define additional outward data representing the unique identifier of the source node~~; and

the destination node having;

reading means for reading the identifier in the additional  
outward data of each packet; and

processing means adapted to

check correct reception of the user data and, in the event of  
correct reception,


determine additional return data defining notably a path  
going from the ~~[said]~~ destination node to the node identified by the identifier; and

acknowledgment means for sending acknowledgment data  
indicating the correct reception of the user data and of the additional return data,

wherein; said determination means is adapted to define additional outward data representing a virtual channel which the user data must follow, the ~~unique~~ identifier of the source node being placed in addition to the virtual channel, thereby enabling the destination node to identify the virtual channel used by the user data ~~without any ambiguity~~.

39. (Currently Amended) A system according to ~~Claim~~ claim 38, wherein said determination means is adapted to determine additional return data representing the virtual channel which the acknowledgment data must follow.

40. (Currently Amended) A sending device for sending user data ~~on a switched network, from a source node having a unique identifier on the network~~, the sending device comprises:

determination means for determining additional outward data defining ~~notably, in its entirety~~, the path to be followed on ~~the~~ a network by the user data, in order to reach a destination node; and

sending means for sending at least one packet of user data and additional outward data which relate to it,


wherein; said determination means is adapted to define additional outward data representing ~~the unique~~ an identifier of the source node, which is placed in addition to a virtual channel which the user data must follow in order to enable the destination node to identify the virtual channel used by the user data.

41. (Currently Amended) A sending device according to ~~Claim~~ claim 40, further includes:

reception means for receiving a packet coming from the destination node, the packet including acknowledgment information;

reading means for reading a virtual channel identifier represented by the acknowledgment information; and

comparison means for comparing the received identifier and the virtual channel identifier used by said sending means.

 42.-54. (Cancelled)

55. (New) A determination method of a transmission mode for a data packet transmitted between a source node and a destination node which are connected through a switching network, the switching network being adapted to transmit data in a plurality of modes including a connected mode where isochronous data can be transmitted and a non-connected mode where asynchronous data can be transmitted, the data packet including user data and additional data which defines notably a path on the network which the user data will follow and includes a data item representing a virtual channel, the method comprising:

a determination step performed at the destination node, of determining whether the packet was transmitted in connected or non-connected mode, the determination being made on the basis of the data item representing the virtual channel.